

## **A case study: environmental stressor leading to reproduction problem in a cow**

### **ABSTRACT**

Heat stress may have long-lasting effects on the reproductive physiology where the fertility will be reduced. During gestation, heat stress affects also the reproductive success of the cow through its direct effect on the early foetus development. The present case reports the incidence of heat stress causing abortion of a full-term foetus and a retained placenta in a cow. A 4-year-old Kedah Kelantan cross cow weighing 250 kg was presented with a primary complaint of abortion and a retained placenta. The cow was managed intensively on a dirt ground without shade. Physical examination revealed that the cow was pyrexia ( $40^{\circ}\text{C}$ ) with congested mucous membrane. However, the body temperature reduced after the cow was showered and transferred into a shade facility. The most noticeable abnormality was the fouled smelling placenta hanging from the vulva. The case was diagnosed as abortion due to environmental stress. Treatment of flunixin meglumine 1.1 mg/kg and oxytetracycline 20 mg/kg were administered accordingly where the cow responded well to the medication. The farm manager was advised to shift all pregnant animals into a facility with shade and practise good waste management in the farm to prevent the occurrence of abortion and other problems related to heat stress. The prognosis of the case was good with prompt diagnosis and effective treatment.

**Keyword:** Heat stress; Gestation; Abortion; Retained placenta; Cow